

Delphi TCM8.1 Transmission Control Module

The Delphi TCM8.1 Transmission Control Module is an electronic device that assists in the control of automatic transmissions to help them operate more efficiently and more reliably. It is a low-cost transmission control module with a robust design for under-the-hood mounting. Its compact size also enables passenger compartment mounting.

The Delphi TCM8.1 features precise actuator control and provides manufacturers with flexibility for multiple applications. Software modifications help optimize vehicle performance while controlling both pulse width modulated and linear solenoid designs. Its high speed controller area network (CAN) communication system enables multiplexing, while flash programming provides in-vehicle memory updates.



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▶ Benefits

- Low cost controller with 32-bit, 66 MHz microprocessor with up to 1.5 MB integrated flash memory enables high-speed processing
- Enables upgrade of a manual transmission to automatic transmission without changing the engine control module
- Small package size uses a standard FR4 circuit board enabling mounting flexibility and manufacturing flexibility
- Single connector offers optimized design
- Software and microprocessor can be configured to meet specific customer requirements
- Mounting location flexibility:
 - Under-the-hood, or passenger compartment
- Solenoid control:
 - Linear or pulse width modulated (PWM) with current feedback
- Dual controller area network interface for vehicle and instrumentation communication
- Compact, waterproof designs allow packaging flexibility
- Right angle single connector offers optimized design and increases mounting flexibility
- Flexibility for increased feature functions with additional low- and high-side driver capabilities available

▶ Typical Applications

The Delphi TCM8.1 Transmission Control Module is suitable for most 4-, 5-, and 6-speed transmission programs. It can also be used to support clutch-to-clutch and free-wheeling transmission programs.

▶ Availability

The Delphi TCM8.1 Transmission Control Module will be available for production in mid-2009. Contact Delphi for further information.

▶ **Performance Advantages**

The Delphi TCM8.1 Transmission Control Module has features that can help vehicle manufacturers meet demanding performance targets, higher-level fuel economy requirements, and very stringent emissions regulations. Delphi's unique understanding of the complete powertrain management system and its full range of major component development capabilities contribute to superior component design and cost-effective systems.

▶ **The Delphi Advantage**

Delphi offers a wide portfolio of transmission management components and complete turn-key solutions. Delphi offers electronics, hydraulic controls, software and algorithms. Delphi offers more than 25 years' experience in high volume powertrain control module design and manufacturing, and can provide customized IC design, manufacturing and analysis.

As a global leader in engine and powertrain management systems technology, Delphi can help manufacturers around the world meet emissions requirements, improve fuel economy and enhance performance. Delphi is a source for high value solutions and our systems expertise is built into every product. Delphi's flexible engineering approach encourages collaboration. And, Delphi has a thorough understanding of automotive markets around the world and a global network of resources.